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Remarks

Thorough examination by the Examiner is noted and appreciated.

The claims have been amended and new claims added to more clearly claim Applicants invention. No new matter has been added.

For example, support for the claim amendments is found in Figure 4 and in the Specification beginning on line 1, page 14:

"A filter 58, which may be conical in shape, as illustrated, is removably fitted in the filter housing 57. The filter 58 includes a frame 59, on which is mounted a mesh 60 having mesh openings of selected size. When the filter 58 is fitted in the filter housing 57, the wide rear end 15 of the filter 58 extends into the conduit interior 55, as illustrated in Fig. 4, and engages the curved interior surface of the conduit 52. The narrow or tapered front end 17 of the filter 58 is disposed adjacent to the valve mount nipple 61."

See also page 16 beginning at line 14:

Upon opening of the drain valve 62 to flush the filter 58, the drain water quantity "Q3" flowing from the filter housing 57 is smaller than the outlet water quantity "Q2", and consequently, the filter-flushing operation of

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the Y-strainer 51 does not affect normal operation of the wet scrubber 70.

Claim Rejections under 35 USC 102

1. Claims 1-8 stand rejected under 35 USC 102(b) as being anticipated by Drori (US 4,207,181).

Drori disclose a self cleaning cylindrical filter and cylindrical housing where the filter body is disposed within the housing with its outer surface facing and spaced from an elongated inlet opening in the filter housing (see Figures 1A and 1b, item 4; col 1, lines 53-57) and spaced apart from the filter housing to define an annular inlet chamber (item 7, Figures 1, and 1a; item 107, Figure 2) where the fluid enters the inlet opening to impinge on an **outer cylindrical surface** of the filter tangentially to cause **cyclonic movement of the liquid between the filter body and the filter housing** (annular space 107) (col 1, lines 61-65; col 4, lines 18-28) and where the fluid, passes into

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the interior of the filter and then from the interior of the filter into a downstream outlet. The upper end of the **filter housing has an annular wall (item 18, Figure 3), to which is fixed the filter body** and which constrains the fluid to flow from the interior of the filter to the downstream outlet (col 2, lines 1-4; col 4, lines 5-16). The filter housing is attached in acute an acute angular relationship to a longitudinal axis of a fluid conduit and a direction of fluid flow (see Figures 1, 2, 4).

Drori therefore does not disclose several aspects of Applicants disclosed and claimed invention including:

"a substantially conical filter housing extending from said conduit in obtuse angular relationship to a longitudinal axis of said conduit and a direction of fluid flow";

Drori also does not disclose:

"a filter contained in said filter housing, said filter extending from said filter housing to intercept said fluid flowing through the conduit"

Drori also does not disclose:

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"a drain valve provided on said filter housing lower end, said lower end comprising a smaller diameter end of said conical filter housing, said drain valve openable for flushing said filter without interrupting said fluid flow through said conduit."

Thus Drori is clearly insufficient to make out a *prima facie* case of anticipation with respect to Applicants disclosed and claimed invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

2. Claims 1-2, 5 and 7 stand rejected under 35 USC 102(b) as being anticipated by Hawkins (US 6,719,900).

Hawkins discloses a cylindrical water filter having a spin plate (item 80, Fig 1) which forms inlet nozzles into the filter body, a cylindrical flow distribution sleeve which contains the

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filter (screen) (item 40, Fig 1), and a cone basin at the bottom portion of the filter body (item 60, Fig 1). Hawkins discloses a screen (item 30, Fig 1) that fits in the flow distribution sleeve with a screen collar that engages the **spin plate** (see Figure 1; Figure 6) **which engages the interior surface of the conduit**. Fluid enters the filter housing through the spin plate nozzles to form water jets directing fluid through the flow distribution sleeve onto the filter screen (col 2, lines 13-26; lines 42-45), where it flows circumferentially and then through the screen and into an outlet pipe (col 5, lines 55-65). **The outlet pipe is attached to the filter body** (col 6, lines 5-10; lines 32-35).

Hawkins therefore does not disclose several aspects of Applicants disclosed and claimed invention including:

"a substantially conical filter housing extending from said conduit in obtuse angular relationship to a longitudinal axis of said conduit and a direction of fluid flow";

Hawkins also does not disclose:

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"a filter contained in said filter housing, said filter extending from said filter housing to intercept said fluid flowing through the conduit"

Hawkins also does not disclose:

"a drain valve provided on said filter housing lower end, said lower end comprising a smaller diameter end of said conical filter housing, said drain valve openable for flushing said filter without interrupting said fluid flow through said conduit."

Thus Hawkins is clearly insufficient to make out a *prima facie* case of anticipation with respect to Applicants disclosed and claimed invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

3. Claims 1-2, 5 and 7 stand rejected under 35 USC 102(b) as

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being anticipated by Tullier (US 4,051,042).

Tullier disclose a filter assembly having a plate sealably secured within the conduit (engaging the conduit) (col 1, lines 39-44; item 12 Figure 1). The filter member (item 15, Figure 1) is abutted against the plate (col 2, lines 10-12) or a conduit (item 35 Figure 3, 4; col 2, lines 45-50). The filter member is replaceable by removing a flange (item 28, Figure 1) located at the bottom end of the filter housing.

Tullier therefore does not disclose several aspects of Applicants disclosed and claimed invention including:

"a substantially conical filter housing extending from said conduit in obtuse angular relationship to a longitudinal axis of said conduit and a direction of fluid flow";

Tullier also does not disclose:

"a filter contained in said filter housing, said filter extending from said filter housing to intercept said fluid flowing through the conduit"

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Tullier also does not disclose:

"a drain valve provided on said filter housing lower end, said lower end comprising a smaller diameter end of said conical filter housing, said drain valve openable for flushing said filter without interrupting said fluid flow through said conduit."

Thus Tullier is clearly insufficient to make out a *prima facie* case of anticipation with respect to Applicants disclosed and claimed invention.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claim Rejections under 35 USC 103

1. Claims 9-20 stand rejected under 35 USC 103(a) as being unpatentable over Applicants alleged admitted prior art in

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Figures 1 and 2 in view of Drori, above.

Applicants reiterate the comments made above with respect to Drori.

Examiner contends that Applicants teach a removable filter in Figure 3. Examiner is apparently misreads Applicants discussion of the prior art and the problems presented in the prior art that Applicants disclosed and claimed invention overcomes.

For example Applicants disclose:

"The conventional Y-strainer 20 having the conventional filter 22 suffers from several disadvantages. The filter 22 is typically fixedly mounted inside the strainer housing 30, and this renders difficult the cleaning process for complete removal of the particles 31 from the filter 22. Consequently, particles 31 remaining in the filter 22 tend to reduce the particle-removing efficiency of the filter 22."

Applicants also disclose that the prior art conventional strainer suffers other problems that Applicants disclosed and claimed invention overcomes:

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"Furthermore, the wet scrubber 2, water cooling system 34 or other system of which the Y-strainer 20 is a part must be shut down for cleaning of the filter 22. Because the filter 22 must typically be cleaned often, the shutdown rate for the wet scrubber 2 or the water cooling system 34 is high, and this interrupts semiconductor production and significantly increases production costs."

Applicants overcome this problem by their disclosed and claimed invention:

"a drain valve provided on said filter housing lower end, said lower end comprising a smaller diameter end of said conical filter housing, said drain valve openable for flushing said filter without interrupting said fluid flow.";

Moreover, the disclosure of Drori does not disclose or recognize as a problem, and where the apparatus of Drori and the principle of operation of the differential pressure sensing diaphragm (col 9, lines 21-32) and purging valve of Drori is not taught or suggested to be able to achieve (see e.g., col 10, lines 29-59).

Furthermore, the only apparent motivation for combining the

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teachings of Drori and Applicants alleged admitted prior art is found only in Applicants disclosure.

In addition, Applicants note that both the strainer of Drori and the purging and pressure differential sensing diaphragm of Drori work by a different principle of operation with respect to both the strainer of Applicants and the first and second pressure monitors of Applicants. Moreover, any modification of Drori to achieve Applicants disclosed and claimed invention would make the strainer of Drori unsuitable for its intended operation.

However, even assuming *arguendo* a proper motivation for combining the teachings in Applicants disclosure with Drori, such combination does not produce Applicants disclosed and claimed invention.

"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

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"Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

"If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

The Claims have been amended and new claims added to clarify Applicants' disclosed and claimed invention. A favorable reconsideration of Applicants' claims is respectfully requested.

Based on the foregoing, Applicants respectfully submit that the Claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

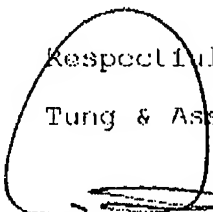
In the event that the present invention as claimed is not in condition for allowance for any reason, the Examiner is

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respectfully invited to call the Applicants' representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

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